REMARKS

The Applicants thank the Examiner for the careful examination of this application and respectfully requests the entry of the amendments indicated hereinabove.

Claims 1-20 and 28-29 are pending and rejected while Claims 21-27 are withdrawn from consideration. Claims 1-2, 8, 15, 19, and 28-29 are amended hereinabove.

Independent Claim 1 positively recites a LVDS system for transmitting symbols on a set of at least three parallel channels, the system comprising for each symbol an active signal on each of two of those channels and an inactive signal on the remaining channel or channels. Claim 1 also positively recites that one of the active signals is provided as a current of a first sense and the other active signal as a current of a second sense, the first and second sense being opposite to each other. These advantageously claimed features are not taught or suggested by the patent granted to Wilhelm.

The Applicants use of a single flow of current to generate three voltage levels that define the data symbol is fundamentally excluded by Wilhelm's structure. Specifically, Wilhelm teaches a CML-type differential switching system

(FIGS. 2-5) while the Applicants claim a LVDS-type signaling system. As a result, the number of bits carried by the Wilhelm system is $log_2(N_I!)$ (page 1 line 30) but the number of bits carried by the Applicants system is $log_2(N_I(N_I-1))$.

The Applicants respectfully traverse the statement in the Office Action (page 4) that "Wilhelm does teach, and the Wilhelm system is capable of, providing a pull-up current and pull down current". The Applicants submit that Wilhelm does not teach, and the Wilhelm system is not capable of, providing the advantageously claimed one pull-up current and one pull-down current. Rather, Wilhelm only considers the situation of driving all wires to different voltage levels (page 1 lines 19-28, page 4 lines17-27 and 40-45, Table 6); therefore, the Wilhelm circuit is really a differential or current-steering circuit with passive resistor pull-up loads (FIGS. 1-5). (The Applicants notes that the term 'pull-up' is most commonly considered by one skilled in the art to refer to a driver in which both the pull-up and pull-down currents are actively varied – such as in a CMOS inverter).

Therefore, the Applicants respectfully assert that Claim 1 is patentable over the patent granted to Wilhelm. Furthermore, Claims 2-5, 7, and 29 are allowable for depending on allowable independent Claim 1 and, in combination, including limitations not taught or described in the reference of record.

Independent Claim 8 positively recites an encoder of a LVDS system for transmitting data symbols from a set of at least three terminals. Claim 8 also positively recites that the encoder is arranged to provide one of the active signals as a current of a first sense and the other active signal as a current of a second sense, the first and second senses being opposite to one another. These advantageously claimed features are not taught or suggested by the patent granted to Wilhelm.

The Applicants use of a single flow of current to generate three voltage levels that define the data symbol is fundamentally excluded by Wilhelm's structure. Specifically, Wilhelm teaches a CML-type differential switching system (FIGS. 2-5) while the Applicants claim a LVDS-type signaling system. As a result, the number of bits carried by the Wilhelm system is $log_2(N_l!)$ (page 1 line 30) but the number of bits carried by the Applicants system is $log_2(N_l(N_l-1))$.

The Applicants respectfully traverse the statement in the Office Action (page 4) that "Wilhelm does teach, and the Wilhelm system is capable of, providing a pull-up current and pull down current". The Applicants submit that Wilhelm does not teach, and the Wilhelm system is not capable of, providing the advantageously claimed one pull-up current and one pull-down current. Rather, Wilhelm only considers the situation of driving all wires to different voltage levels (page 1 lines 19-28, page 4 lines17-27 and 40-45, Table 6); therefore, the

Wilhelm circuit is really a differential or current-steering circuit with passive resistor pull-up loads (FIGS. 1-5). (The Applicants notes that the term 'pull-up' is most commonly considered by one skilled in the art to refer to a driver in which both the pull-up and pull-down currents are actively varied – such as in a CMOS inverter).

Therefore, the Applicants respectfully assert that Claim 8 is patentable over the patent granted to Wilhelm. Furthermore, Claims 9-12 and 14-20 are allowable for depending on allowable independent Claim 8 and, in combination, including limitations not taught or described in the reference of record.

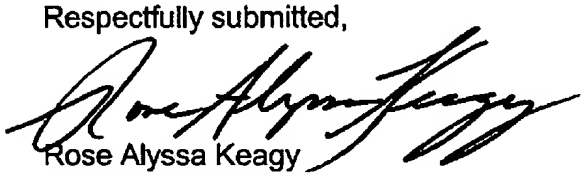
Independent Claim 28 positively recites an encoder of a LVDS system being arranged to provide one of the active signals as a current of a first sense and the other active signal as a current of a second sense, the first and second senses being opposite to one another. These advantageously claimed features are not taught or suggested by the patent granted to Wilhelm.

The Applicants use of a single flow of current to generate three voltage levels that define the data symbol is fundamentally excluded by Wilhelm's structure. Specifically, Wilhelm teaches a CML-type differential switching system (FIGS. 2-5) while the Applicants claim a LVDS-type signaling system. As a result, the number of bits carried by the Wilhelm system is $log_2(N_i!)$ (page 1 line

30) but the number of bits carried by the Applicants system is $log_2(N_f(N_r-1))$. Therefore, the Applicants respectfully assert that Claim 28 is patentable over the patent granted to Wilhelm.

For the reasons stated above, this application is believed to be in condition for allowance. Reexamination and reconsideration is requested.

Respectfully submitted,



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